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Total Number of Pages in This Submission	

Application Number	10/072,931
Filing Date	February 12, 2002
First Named Inventor	Shunpei YAMAZAKI et al.
Group Art Unit	2812
Examiner Name	S. Isaac
Attorney Docket Number	0756-2433

ENCLOSURES *(check all that apply)*

- ☒ Fee Transmittal Form
  - ☒ Fee Attached
- ☒ Amendment / Reply
  - ☐ After Final
  - ☐ Affidavits/declaration(s)
- ☒ Extension of Time Request
- ☐ Express Abandonment Request
- ☐ Information Disclosure Statement
- ☐ Certified Copy of Priority Document(s)
- ☐ Response to Missing Parts/ Incomplete Application
  - ☐ Response to Missing Parts under 37 CFR 1.52 or 1.53
- ☐ Assignment Papers *(for an Application)*
- ☐ Drawing(s)
- ☐ Declaration and Power of Attorney
- ☐ Licensing-related Papers
- ☐ Petition
- ☐ Petition to Convert to a Provisional Application
- ☐ Power of Attorney, Revocation Change of Correspondence Address
- ☐ Terminal Disclaimer
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- ☐ CD, Number of CD(s) _____
- ☐ After Allowance Communication to Group
- ☐ Appeal Communication to Board of Appeals and Interferences
- ☐ Appeal Communication to Group *(Appeal Notice, Brief, Reply Brief)*
- ☐ Proprietary Information
- ☐ Status Letter
- ☐ Other Enclosures
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Remarks

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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Eric J. Robinson, Reg. No. 38,285 Robinson Intellectual Property Law Office, P.C. PMB 955 21010 Southbank Street Potomac Falls, VA 20165
Signature	
Date	8-23-04

CERTIFICATE OF MAILING

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Type or printed name	Rose Fichtel		
Signature	Rose Fichtel	Date	8/23/04

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2812

Attorney Docket No. 0756-2433

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:	)	Group Art Unit: 2812
Shunpei YAMAZAKI et al.	)	Examiner: S. Isaac
Serial No. 10/072,931	)	CERTIFICATE OF MAILING
Filed: February 12, 2002	)	I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on 8/23/04.
For: METHOD OF MANUFACTURING A SEMICONDUCTOR DEVICE	)	Rose Fichtl

RESPONSE

Honorable Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The Official Action mailed April 23, 2004, has been received and its contents carefully noted. Filed concurrently herewith is a *Request for One Month Extension of Time*, which extends the shortened statutory period for response to August 23, 2004.

The Applicants note with appreciation the consideration of the Information Disclosure Statements filed on April 5, 2002, and October 30, 2002.

Claims 1-80 are pending in the present application, of which claims 1-46, 48-50, 52, 54, 56-58, 60-62 and 64-80 have been withdrawn by the Examiner. Accordingly, at least claims 47, 51, 53, 55, 59 and 63 are currently elected, of which claim 47 is independent. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

In the *Amendment* filed March 19, 2003, the Applicants added generic claims 78-80 and noted that "[i]ndependent claim 78 is generic to at least independent claims 1, 10, 46, 47, 48, 66 and 67 and the claims dependent therefrom" (page 4). Paragraph 2 of the Official Action withdraws claims 78-80 from consideration; however, the Official

Action fails to provide a rationale for why these generic claims have been withdrawn. Reconsideration is requested.

Paragraph 5 of the Official Action rejects claims 47, 51, 53, 55, 59 and 63 as anticipated by U.S. Patent No. 6,048,758 to Yamazaki et al. The Applicants respectfully traverse the rejection because the Official Action has not established an anticipation rejection.

As stated in MPEP § 2131, to establish an anticipation rejection, each and every element as set forth in the claim must be described either expressly or inherently in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

The Applicants respectfully submit that an anticipation rejection cannot be maintained against the independent claims of the present application. Yamazaki '758 does not teach all the elements of the independent claims, either explicitly or inherently. The Official Action broadly asserts, without providing any specific support from the reference, that Figures 1A-11 of Yamazaki '758 teach "adding an inert gas element to an upper layer of the second semiconductor film" (page 3, Paper No. 0404). The Applicants respectfully disagree and traverse the above assertion.

Yamazaki '758 appears to disclose that "the amorphous silicon film 107 [second semiconductor film] containing oxygen as impurity is formed ... through the plasma CVD method or the low pressure thermal CVD method" (column 9, lines 31-35) and that "oxygen is contained as the impurities in the amorphous silicon film 107... even though carbon or nitrogen [inert gas element] is contained therein instead of oxygen" (column 10, lines 62-67). Although Yamazaki '758 may teach carbon or nitrogen in amorphous silicon film 107, Yamazaki '758 is silent as to an upper layer of the amorphous silicon film 107. Also, the Official Action has not provided a basis in fact or technical reasoning to reasonably support a determination that adding an inert gas element to an upper layer of a second semiconductor film necessarily flows from the teachings of the Yamazaki '758 reference. Therefore, the Applicants respectfully submit that Yamazaki

'758 does not teach adding an inert gas element to an upper layer of a second semiconductor film, either explicitly or inherently.

Since Yamazaki '758 does not teach all the elements of the independent claims, either explicitly or inherently, an anticipation rejection cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 102 are in order and respectfully requested.

Paragraph 11 of the Official Action rejects claim 51 as obvious based on the combination of Yamazaki and U.S. Patent No. 5,960,252 to Matsuki et al. The Applicants respectfully traverse the rejection because the Official Action has not made a *prima facie* case of obviousness.

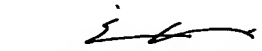
As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

Matsuki does not cure the deficiencies in Yamazaki '758. The Official Action relies on Matsuki to allegedly teach a barrier layer formed by oxidizing a surface of a first semiconductor film by using a solution containing ozone (page 4, Paper No. 0404).

However, Yamazaki '758 and Matsuki, either alone or in combination, do not teach or suggest adding an inert gas element to an upper layer of a second semiconductor film. Since Yamazaki '758 and Matsuki do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,



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